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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,672		Carl D. Meinhart	0328	9858
33306	7590	07/06/2005	EXAMINER	
GENE W. ARANT P.O. BOX 269 LINCOLN CITY, OR 97367-0269			LUU, THANH X	
			ART UNIT	PAPER NUMBER
			2878	

DATE MAILED: 07/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

67

Office Action Summary	Application No. 10/713,672	Applicant(s) MEINHART ET AL.	
	Examiner Thanh X. Luu	Art Unit 2878	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-59 is/are pending in the application.
 4a) Of the above claim(s) 41-44 is/are withdrawn from consideration.
5) ☒ Claim(s) 20-40 and 53-57 is/are allowed.
6) ☒ Claim(s) 45, 47-52, 58 and 59 is/are rejected.
7) ☒ Claim(s) 46 and 48 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 13 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of claims 20-40 and 45-59 in the reply filed on May 2, 2005 is acknowledged.

Claims 41-44 are withdrawn.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Objections

3. Claims 20, 31, 45 and 58 are objected to because of the following informalities:

Regarding claims 20, 31, 45 and 58, "the impinging light" lacks proper antecedent basis. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 45, 47, 49, 52 and 58 are rejected under 35 U.S.C. 102(b) as being anticipated by Horiuchi et al. (U.S. Patent 5,594,544).

Regarding claims 45, 47, 49, 52 and 58, Horiuchi et al. disclose (see Fig. 1) a method of measuring motion within a fluid body comprising: selecting and injecting solid

Art Unit: 2878

particles as claimed, repetitively applying a short pulse of light (flash lamp) at periodic intervals to broadly illuminate the fluid body; after each pulse, observing light scattered from the particles through an objective lens (5) as claimed; and then comparing (in 26) successively observed discrete images of discrete particles to determine motion of the fluid body. Since a TV camera is used, the light is inherently in the visible wavelength.

6. Claim 58 is rejected under 35 U.S.C. 102(b) as being anticipated by Shaffer (U.S. Patent 5,333,044).

Regarding claim 58, Shaffer discloses (see Figs.) a method of measuring motion within a fluid body, comprising: applying a short pulse of light (52) through an objective lens (56) to the fluid body so as to broadly illuminate the fluid body, and then repeating (another pulse) the application of the light pulse after a known time delay; after each pulse of the light, observing (64) discrete images of discrete particles lying within the depth of field of the objective lens; and (see Figs. 7-9) comparing discrete images of discrete particles that are successively observed in a two-dimensional plane defined by the depth of field of the objective lens as a function of time to determine motion of the fluid body.

7. Claims 58 and 59 are rejected under 35 U.S.C. 102(a) as being anticipated by the publication of Paul et al. ("Imaging of Pressure and Electrokinetically Driven Flows through Open Capillaries", Analytical Chemistry, July 1, 1998).

Regarding claims 58 and 59, Paul et al. disclose (see Figs.) a method of measuring motion within a fluid body, comprising: applying a short pulse of light (from blue laser) through an objective lens (visible objective) to the fluid body (capillary) so as

Art Unit: 2878

to broadly illuminate the fluid body, and then repeating (another pulse) the application of the light pulse after a known time delay; after each pulse of the light, observing (with CCD) discrete images of discrete particles lying within the depth of field of the objective lens; and (see Fig. 3) comparing discrete images of discrete particles that are successively observed in a two-dimensional plane defined by the depth of field of the objective lens as a function of time to determine motion of the fluid body. The images are observed through the same objective lens.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 50 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horiuchi et al.

Regarding claims 50 and 51, Horiuchi et al. disclose the claimed invention as set forth above. Horiuchi et al. do not specifically disclose UV or infrared light. However, the type of light used is a matter of design choice. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use UV or infrared light in the apparatus of Horiuchi et al. to reduce interference from visible light and improve detection.

Double Patenting

10. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

11. Claims 58 and 59 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-12 of U.S. Patent No. 6,653,651. Although the conflicting claims are not identical, they are not patentably distinct from each other because the current claims are simply broader versions of the claims of the '651 patent. For instance, claim 1 of the '651 patent claims applying a short pulse of light, after each pulse observing discrete images of discrete particles and comparing discrete images to determine the motion of the fluid body.

Allowable Subject Matter

12. Claims 20-40 and 53-57 are allowed over the prior art of record.

13. Claims 46 and 48 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

14. The following is a statement of reasons for the indication of allowable subject matter: a method of measuring motion as claimed, more specifically in combination with after each pulse observing scattered light through the same objective that produces well-focused discrete images of discrete particles and comparing the discrete images to determine motion of the fluid body, is not disclosed or made obvious by the prior art of record.

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh X. Luu whose telephone number is 571-272-2441. The examiner can normally be reached on M-F 6:30AM-4:00PM.

Art Unit: 2878

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thach X. Luu
Primary Examiner
Art Unit 2878

07/2005